

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/013702

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16C3/02 B60K17/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16C B60K B21K B62D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 566 777 A (TROMMER ET AL) 22 October 1996 (1996-10-22)	1,2,4,6, 9-12,17, 18
A	the whole document	5,7,8, 13,14
X	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 06, 4 June 2002 (2002-06-04) & JP 2002 054622 A (SANGO CO LTD), 20 February 2002 (2002-02-20) abstract; figures 5-8	1-3,6,9, 12,17,18
X	US 6 371 859 B1 (GIBSON DANIEL W) 16 April 2002 (2002-04-16) column 3, line 41 - column 4, line 10; figure 2	1-3,6,9, 12,17,18
-/-		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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Date of the actual completion of the international search

8 April 2005

Date of mailing of the international search report

15/04/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 3 699 624 A (WILLIAM J. DE GAIN) 24 October 1972 (1972-10-24) column 4, line 61 - column 5, line 5; figure 7</p> <p>-----</p>	

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Information on patent family members

International Application No

PCT/EP2004/013702

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5566777	A	22-10-1996	DE 4240237 A1	01-06-1994
			FR 2698674 A1	03-06-1994
			JP 2844555 B2	06-01-1999
			JP 6278554 A	04-10-1994
JP 2002054622	A	20-02-2002	NONE	
US 6371859	B1	16-04-2002	AU 776022 B2	26-08-2004
			AU 1676101 A	09-08-2001
			BR 0100309 A	09-10-2001
			DE 10104547 A1	09-08-2001
			GB 2358902 A ,B	08-08-2001
US 3699624	A	24-10-1972	US 3577621 A	04-05-1971